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| APPLICATION NO.              | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/584,004                   | 08/01/2008  | Gianni Collina       | 124-189USFE6159     | 8569             |
| 74275 7590 08/02/2011        |             |                      |                     |                  |
| DILWORTH IP, LLC             |             |                      |                     |                  |
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| TRUMBULL, CT 06611           |             |                      |                     |                  |
| EXAMINER                     |             |                      |                     |                  |
| WRIGHT, SONYA N              |             |                      |                     |                  |
| ART UNIT                     |             | PAPER NUMBER         |                     |                  |
| 1762                         |             |                      |                     |                  |
| MAIL DATE                    |             | DELIVERY MODE        |                     |                  |
| 08/02/2011                   |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/584,004

**Applicant(s)**

COLLINA ET AL.

**Examiner**

SONYA WRIGHT

**Art Unit**

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13, 14, 18-24 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 14, 18, 19, 21, 22 and 27 is/are rejected.
- 7) ☒ Claim(s) 20, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is in response to applicant's amendment filed July 11, 2011. Claims 13 and 27 have been amended. Claims 15, 16, and 25-26 have been canceled. The rejection in the previous office action is withdrawn in view of applicant's amendment. The new rejection under 35 U.S.C. 103(a) is made in view of applicant's amendment.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 states that "the transition metal compound is selected from at least one titanium compound comprising formula  $Ti(OR)_nX_{y-n}$ . . ." the phrase "at least one" makes the claim confusing. Appropriate correction is requested.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112- 2112.02.

Claims 13, 14, 18, 21, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,532,326 Dall'Occo et al. (hereinafter, Dal'Occo).

Regarding claim 13, Dall'Occo teaches an adduct of magnesium chloride/ethyl alcohol. See the Example in column 4, line 64. The adduct was subjected to thermal dealcoholation. See column 4, line 67 and column 3, lines 20-22. Next, the adduct was reacted with the Lewis Base, an ester, ethylbenzoate. See Example 1, column 5, lines 11-16.

Dall'Occo is silent on the fusion enthalpy of the adduct. However, the adduct in Dall'Occo has the same components as the adduct instantly claimed and was prepared the same way as the adduct instantly claimed. Therefore, the adduct in Dall'Occo would have the same fusion enthalpy as that instantly claimed.

Dall'Occo differs from the instant claims because Dall'Occo does not teach that the adducts in the Examples have the "n" and "p" values instantly claimed. However, Dall'Occo teaches that the adduct has the formula  $MgCl_2 \cdot nROH$ , wherein R can be an alkyl having 1 to 12 carbon atoms and n is generally greater than 2. See column 3, lines 10-15. Dall'Occo teaches the Lewis Base is preferably an ester. See column 3, lines 34-40. Dall'Occo's process of preparing the catalyst components containing the adduct is the same as that of the instant claims. In the Example on page 4, lines 64-67 and page 5, lines 1-16, an adduct of magnesium chloride/ethyl alcohol is subjected to thermal dealcoholation, next the adduct is reacted with a Lewis Base.

The formula of the adduct in Dall'Occo is due to the chemical formulation. The chemical components in the adduct of Dall'Occo are the same as those instantly claimed and the process of preparing the catalyst component containing the adduct are

the same as that instantly claimed. Therefore, the adduct in Dall'Occo would have the same "n" and "p" values as instantly claimed.

Regarding claim 14, the formula of the adduct in Dall'Occo is due to the chemical formulation. Therefore, the adduct in Dall'Occo would have the same "n" and "p" values as instantly claimed. See the Example on page 4, lines 64-67 and page 5, lines 1-16.

Regarding claim 18, Dall'Occo teaches that the transition metal compound  $\text{VCl}_4$  is reacted with the adduct. See Example 1, column 5, lines 21-24. For a teaching that the invention is useful in polymerizations see column 1, lines 6-9.

Regarding claim 21, Dall'Occo teaches that electron donor compounds comprise the Lewis Bases. See column 3, lines 34 and 35. Dall'Occo teaches that the adduct is reacted with a Lewis Base, ethylbenzoate and the transition metal  $\text{VCl}_4$ . See column 5, lines 10-24. Also see column 2, lines 55-59.

Regarding claim 22, Dall'Occo teaches the use of the electron donor, an ester, ethylbenzoate. See Example 1, column 5, lines 11-16.

Regarding claim 27, Dall'Occo teaches that the Lewis Base is selected from compounds such as ethers and esters. See column 3, lines 34 and 35. Dall'Occo teaches the use of the ester ethylbenzoate in an example. See Example 1, column 5, lines 11-16. It is noted that according to instant claim 13, if LB is ether or ester,  $\text{RX}_m$  is absent.

### ***Claim Objections***

Claims 20, 23, and 24 are objected to as being dependent upon a rejected base claim.

***Response to Arguments***

Applicant's arguments, see p. 4-9, and the declaration filed July 11, 2011, with respect to the rejection(s) of claim(s) 25 and 26 under 102 and claims 13-16, 18-24 and 27 under 102 or 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. The new rejection under 35 U.S.C. 103(a) is made in view of applicant's amendment.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SONYA WRIGHT whose telephone number is (571)272-5857. The examiner can normally be reached on 8:30 am to 5:00 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SONYA WRIGHT/  
Examiner, Art Unit 1762

/DAVID W WU/  
Supervisory Patent Examiner, Art Unit 1762